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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,567	11/24/2003	Justin Russell Bendich	SJO920030051US1	5721
45216	7590	09/18/2008		
Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			EXAMINER SIKRI, ANISH	
			ART UNIT 2143	PAPER NUMBER
			MAIL DATE 09/18/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/720,567

**Applicant(s)**

BENDICH ET AL.

**Examiner**

ANISH SIKRI

**Art Unit**

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. **Claims 1-6, 15-20** are rejected under U.S.C. 103(a) as being anticipated by Gajjar et al (US Pub 20020174306) hereafter known as Gajjar1, in view of Gajjar et al (US Pat 7,415,506) hereafter known as Gajjar2.
2. Consider **claim 1**, Gajjar1 disclosed the modeling apparatus for provisioning a storage resource, the apparatus comprising (Gajjar1 [0008]-[0009], Gajjar1 disclosed on how a storage provisioning policy helps in creating a storage model): a monitoring module configured to monitor a plurality of existing storage resources corresponding to a client (Gajjar1, [0008], [0028], Gajjar1 disclosed on how physical storage devices are connected), wherein one of the plurality of existing storage resources designated is the model storage resource (Gajjar1, [0007]-[0009], Gajjar1 disclosed on creating storage policy which in turn is used to create model storage resources based on the specified model requirements); a policy module configured to store a plurality of storage provisioning policies (Gajjar1, [0008] Gajjar1 disclosed the use of storage policies), the plurality of storage provisioning policies defining a modeling policy (Gajjar1, [0055], Gajjar1 disclosed on how storage policies provide a model policy for creation of specific storage resources). A provisioning module configured to provision a new storage resource for the client according to the modeling policy (Gajjar1, [0055-0056], Gajjar1 disclosed provisioning storage using a storage provisioning policy), the new storage resource modeled after the model storage resource (Gajjar1, [0046-0047], Gajjar1 disclosed on the use of a new storage modeled after model storage policy). Gajjar1's

invention disclosed on how first storage devices are monitored on the network (Gajjar1, [0022], [0028]) and the use of a storage provisioning policies for the purpose of allocating new storage resources to the apparatus, used in conjunction with a monitoring module (Gajjar1, [0046-0047]).

3. But Gajjar1 does not explicitly disclose the specification module configured to specify a Logical Unit Number (LUN) storage resource in modeling policy;

4. Nonetheless, Gajjar2 disclosed the specification module configured to specify a Logical Unit Number (LUN) storage resource in modeling policy (Gajjar2, Col 6 Lines 37-58, Gajjar2 disclosed on how a media unit is configured based on the specifications stored in memory of the system, and a model resource is created based on the specifications desired.

5. Both inventions of Gajjar et al provide features related to storage management. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment.

6. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to incorporate the creation of model resource based on specifications, taught by Gajjar2, in the system of Gajjar1 for the purpose of managing storage resources efficiently.

7. Consider **Claim 2**, and as applied to claim 1, Gajjar1-Gajjar2 discloses a specification module configured to allow a user to specify one of the plurality of storage provisioning policies (Gajjar1 [0046-0047]). Gajjar1's invention clearly shows the use of

a storage provisioning policies for the purpose of allocating new storage resources to the apparatus.

8. Consider **Claim 3**, and as applied to claim 1 above, Gajjar1-Gajjar2 discloses where a model storage resource is stored in a storage pool in a storage server (Gajjar1, [0008]-[0009]) and the modeling policy specifies a storage location in which the new storage resource is provisioned (Gajjar1, [0046-0047]). Gajjar1's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the apparatus, used in conjunction with a monitoring module.

9. Consider **Claim 4**, and as applied to claim 3 above, Gajjar1-Gajjar2 discloses the storage location comprises the same storage server as the model storage resource (Gajjar1, [0055-0056]). Gajjar1's invention clearly shows that the storage can reside in a single standing server for the purpose of locally allocating storage resources locally.

10. Consider **Claim 5**, and as applied to claim 4 above, Gajjar1-Gajjar2 discloses the storage location comprises the same storage pool as the model storage resource (Gajjar1, [0055-0056]). Gajjar1's invention clearly shows that the locations of the storage resources are in the same apparatus.

11. Consider **Claim 6**, and as applied to claim 1 above, Gajjar1-Gajjar2, discloses the modeling policy specifies a model group to which the model storage resource belongs (Gajjar1, [0046-0047]). Gajjar1's invention clearly shows on how the modeling policy identifies the physical groups to which the storage resource belongs to on the apparatus.

12. **Claim 15** has similar limitations as Claim 1. Therefore it is rejected under the same rational as Claim 1.

13. **Claim 16** has similar limitations as Claim 2. Therefore it is rejected under the same rational as Claim 2.

14. **Claim 17** has similar limitations as Claim 3. Therefore it is rejected under the same rational as Claim 3.

15. **Claim 18** has similar limitations as Claim 4. Therefore it is rejected under the same rational as Claim 4.

16. **Claim 19** has similar limitations as Claim 5. Therefore it is rejected under the same rational as Claim 5.

17. **Claim 20** has similar limitations as Claim 6. Therefore it is rejected under the same rational as Claim 6.

18. Claims **7-14, 21 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gajjar et al (US Pub 20020174306), and further in view of Gajjar et al (US Pat 7,415,506) hereafter known as Gajjar2, and in view of Dalal et al (US Pub 20040123063) hereafter known as Dalal.

19. Consider **Claim 7**, and as applied to claim 6 above, Gajjar1-Gajjar2, does not explicitly state the model group comprises a volume group used by the client.

20. Nonetheless, Dalal disclosed the model group comprises a volume group used by the client (Dalal [0019] and [0188]). Dalal's invention clearly shows on the use of volume groups.

21. Both Gajjar1-Gajjar2 and Dalal provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

22. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Dalal in the system of Gajjar1-Gajjar2 for the purpose of creating local volume groups extents for allocating and managing storage resources on the apparatus.

23. Consider **Claim 8**, and as applied to claim 1 above, Gajjar1-Gajjar2 does not explicitly state the new storage resource is assigned to a file system and expands a storage capacity of the file system.



24. Nonetheless, Dalal clearly shows the new storage resource is assigned to a file system and expands a storage capacity of the file system (Dalal [0018]). The use of file system is clearly shown in Dalal's invention of storage allocation.

25. Both Gajjar1-Gajjar2 and Dalal provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

26. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a file system, taught by Dalal, in the system of Gajjar1-Gajjar2 for the purpose having storage resources/physical groups to be configured to use by the existing file system of the apparatus/server.

27. Consider **Claim 9**, and as applied to claim 8 above, Gajjar1-Gajjar2 as modified by Dalal disclosed the modeling policy specifies a model group to which the model storage resource belongs, the model group comprising a volume group in which the file system is stored Dalal, [0018],[0019] and [0188]). Dalal disclosed on how the volume groups are configured with the file system.

28. Consider **Claim 10**, and as applied to claim 1, Gajjar1-Gajjar2, does not explicitly state the new storage resource is assigned to a raw logical volume and expands a storage capacity of the raw logical volume.

29. Nonetheless, Dalal discloses the new storage resource is assigned to a raw logical volume and expands a storage capacity of the raw logical volume (Dalal [0017]). Dalal disclosed on how logical volumes are added to the system.

30. Both Gajjar1-Gajjar2 and Dalal provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

31. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use logical volumes configured to be used in the system, taught by Dalal, in the system of Gajjar1-Gajjar2 for the purpose of increasing or allocating storage resources of the apparatus.

32. Consider **Claim 11**, Gajjar1 discloses a storage resource manager server configured to monitor a plurality of existing storage resources corresponding to the client (Gajjar1 [0008], [0028], Gajjar1 disclosed on how physical storage devices are connected) and to provision a new storage resource for the client according to a modeling policy (Gajjar1 [0032]-[0033]) and the new storage resource modeled after a model storage resource; and a storage server configured to store the model storage resource and the new storage resource (Gajjar1, [0046-0047]).

33. But Gajjar1 does not explicitly disclose that to specify a LUN storage resource as a model storage in a modeling policy, wherein the model storage resource is one of the plurality of existing storage resources;

34. Nonetheless, Gajjar2 disclosed the specification module configured to specify a Logical Unit Number (LUN) storage resource in modeling policy (Gajjar2, Col 6 Lines 37-58, Gajjar2 disclosed on how a media unit is configured based on the specifications stored in memory of the system, and a model resource is created based on the specifications desired.

35. Both inventions of Gajjar et al provide features related to storage management. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment.

36. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to incorporate the creation of model resource based on specifications, taught by Gajjar2, in the system of Gajjar1 for the purpose of managing storage resources efficiently.

37. Gajjar1 does not explicitly state the system, in which it indicates a client having a file system.

38. Nonetheless, Dalal disclosed a client having a file system (Dalal [0018]). The use of file system is clearly shown in Dalal's invention of storage allocation.

39. Both Gajjar1 and Dalal provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

40. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a file system, taught by

Dalal, in the system of Gajjar1 for the purpose of accessing the new storage resources of the system.

41. Consider **Claim 12**, and as applied to claim 11 above, Gajjar1-Gajjar2-Dallal disclosed the storage resource manager repository configured to store a plurality of storage provisioning policies, the plurality of storage provisioning policies defining the modeling policy (Gajjar1, [0007]-[0008]). Gajjar1's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system.

42. Consider **Claim 13**, and as applied to claim 12 above, Gajjar1-Gajjar2-Dallal disclosed a module where configured to allow a user to access and specify one of the plurality of storage provisioning policies (Gajjar1 [0032]-[0033]). Gajjar1's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system by the user.

43. Consider **Claim 14**, and as applied to claim 11 above, Gajjar1-Gajjar2-Dallal disclosed a storage resource is stored in a storage pool in the storage server (Gajjar1 [0023]) and the modeling policy specifies a storage location in which the new storage resource is provisioned and specifies a model group to which the model storage resource belongs (Gajjar1, [0046-0047]). Gajjar1's invention clearly shows the use of a

storage provisioning policies for the purpose of allocating new storage resources to the system.

44. Consider **Claim 21**, and as applied to claim 20 as above, Gajjar1-Gajjar2, does not explicitly state the model group comprises a volume group used by the client.

45. Nonetheless, Dalal clearly shows the model group comprises a volume group used by the client (Dalal [0018]-[0019] and [0188]). Dalal's invention clearly shows on the use of volume groups.

46. Both Gajjar1-Gajjar2 and Dalal provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment

47. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Dalal, in the system of Gajjar1-Gajjar2 for the purpose of creating local volume groups extents for allocating and managing storage resources on the computer readable storage medium.

48. Consider **Claim 22**, and as applied to claim 21 as above, Gajjar1-Gajjar2-Dallal, disclosed new storage resource corresponds to a file system and wherein the model group comprises a volume group in which the file system is stored (Dalal, [0018]-[0019] and [0188]). Dalal's invention clearly shows on the use of volume groups, which are configured with the file system.

***Response to Arguments***

Applicant's arguments filed 8/20/08 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 1, 11, 15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH SIKRI whose telephone number is 571-270-1783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anish Sikri  
a.s.

September, 11 2008

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2143